

REMARKS

The Office Action mailed January 25, 2006, has been received and reviewed. Claims 1-25 are currently pending in the application. Claims 1-17 stand rejected. Claims 18-25 are withdrawn. Applicants respectfully request reconsideration of the application.

35 U.S.C. § 103(a) Obviousness Rejections**Obviousness Rejection Based on U.S. Patent No. 6,034,149 to Bleys et al.**

Claims 1 through 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bleys et al. (U.S. Patent No. 6,034,149) (“Bleys” hereinafter). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The 35 U.S.C. § 103(a) obviousness rejections of 1-17 are improper because Bleys does not teach or suggest all the claim elements and there is no suggestion or motivation to modify the reference to make the claimed invention.

Regarding claim 1, the Examiner asserts that Bleys discloses an absorbent comprising dispersed acrylonitrile and triallyl methylammonium chloride (Office Action, p. 2). More specifically, Bleys discloses polymer-modified polyols containing dispersed polymer particles produced by polymerization of one or more vinyl monomers such as acrylonitrile (*see* Bleys, column 3, lines 47-51) and super absorbent polymers (SAPs) prepared by polymerizing diallyl dialkyl quaternary ammonium salts in the presence of a polyfunctional divinyl compound and/or a crosslinker like triallyl methylammonium chloride (*see* Bleys, column 5, lines 52-55).

Applicants respectfully submit that Bleys does not teach or suggest “at least one *trialkyl* methylammonium compound homogenously dispersed in a *polyacrylonitrile matrix*” as recited, in part, by claim 1 of the referenced application. Bleys teaches a polyether polyol with dispersed

polymer particles but *does not* teach or suggest a polyacrylonitrile matrix with a homogenously dispersed *trialkyl* methylammonium compound.

Furthermore, Bleys references a *triallyl* methylammonium chloride crosslinker, which is chemically different from the *trialkyl* methylammonium compound recited in claim 1.

Applicants recognize that the Examiner may not have appreciated the differences between an alkyl and an allyl compound for purposes of the present invention. However, as is well known by those of ordinary skill in the art, an allyl compound contains carbon-carbon double bonds, while an alkyl compound contains only carbon-carbon single bonds. (*See* Specification, paragraph [0057]). The differences between the *triallyl* methylammonium chloride crosslinker of Bleys and the *trialkyl* methylammonium compound of claim 1 have a significant impact on the reactivity, *i.e.*, acidity, of the different compounds and those of ordinary skill in the art would not be motivated to use a very different (triallyl) molecule having an unpredictable effect to form the composite medium of the instant invention. Further, and notably, the Examiner has not provided any rationale or motivation for substituting an allyl compound for an alkyl compound as claimed.

Regarding the method of claim 8, the Examiner asserts that Bleys discloses combining in solution dispersed acrylonitrile and triallyl methylammonium chloride. However, as discussed previously, Bleys does not teach or suggest a method including dissolving polyacrylonitrile in a solvent to form a matrix solution and combining at least one trialkyl methylammonium compound with the matrix solution. Also, as discussed previously, the *triallyl* methylammonium chloride crosslinker of Bleys and the *trialkyl* methylammonium compound of claim 8 have unpredictable chemical differences and there is no suggestion, motivation or expectation of success for one of ordinary skill in the art to substitute one for the other.

As such, a *prima facie* case of obviousness has not been established because Bleys does not teach or suggest all the elements of either independent claims 1 and 8 and there is no suggestion or motivation to modify the reference to make the claimed invention. Furthermore, dependent claims 2-7 and 9-17 should be allowable, among other reasons, as depending from allowable independent claims 1 and 8.

Regarding dependent claims 5 and 13, the Examiner asserts that Bleys suggests dispersed acrylonitrile particles in substantially homogenous and spherical shapes. However, Applicants respectfully submit that, while Bleys discloses cutting samples into cube-like polyhedrons (*see* Bleys, column 8, lines 1-2), Bleys does not disclose or even suggest spherical shapes.

For the forgoing reasons, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) obviousness rejections of independent claims 1 and 8, and dependent claim 2-7 and 9-17.

CONCLUSION

Claims 1-17 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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